



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/194,567	04/07/99	LEIJON	M 705/71503280

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EXAMINER

ENAD,E

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 02/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/194,567

Applicant(s)

Leijon et al.

Examiner

Enad, Elvin

Group Art Unit

2834



☒ Responsive to communication(s) filed on Jan 8, 2001

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-19 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-19 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1,10 and 19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the specification that the windings as claimed include a flexible conductor.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 5, reference to “the securing device” is confusing, lacking proper antecedent basis. It is unclear if applicant is referring to the positioning means.

In regard to claim 9, reference to the “positioning means” is lacking proper antecedent basis.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,2 and 6-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shildneck (USP 3,014,139) in view of Elton et al. (USP 4,853,565).

Shildneck discloses the claimed invention except for having his stator winding comprised of an insulation system with an inner and outer semiconducting layer disposed between the insulation. Shildneck discloses an improved continuous winding for an electromagnetic device such as a large turbine-driven generator, the winding employing an improved form of flexible insulated conductor for the laminated armature core of the dynamoelectric machine.

Elton et al. ('565) teach that it is known use of a semi-conducting layer material with an insulated conductor. Elton et al. ('565) provide three distinct embodiments utilizing a semiconducting layer, namely, in windings of a dynamoelectric machine, electrical cables and electrical housing surrounding a digital electronic equipment. As seen in figures, such as figure 7,

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Elton et al. teach having his electrical conductor comprised of a solid insulation layer **106** between two semi-conducting pyrolyzed glass fibers **104, 110**, the internal grading layer **104** surrounding the conductors of cable **100**. In another form of embodiment, Elton et al. teach an electrical cable provided with an exterior layer of internal grading layer of semi-conducting pyrolyzed glass fiber layer in contact with an exterior cable insulator with a predetermined reference potential.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the cable as taught by Elton et al. as winding conductors to the stator as disclosed by Shildneck since such a modification according to Elton et al. would provide a cable that prohibit development of corona discharge and equalizes the electrical charge generated between two layers.

Regarding claim 2, note figure 5 of Elton et al. ('565) whereby Elton et al. teach using insulated blocks **54**, ties **56** and axial brackets **58a, 58b, 58c** to secure and provide support for the windings.

8. Claims 3-5 and 10-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shildneck (USP 3,014,139) in view of Elton et al. (USP 4,853,565) and further in view of Cooper et al. (USP 4,618,795).

Shildneck in view of Elton et al. disclose the claimed invention except for a teaching of various forms and positioning of the securing means and resilient means in the stator end winding layers.

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Cooper et al. teach a method of consolidating the generator end turns while providing for thermal compensation, cushion, and reduced friction between the end turn coils. Cooper et al. teach providing a decoupled brace located radially outside the end turns having a bottom piece secured to a bracket secured to the core and a top piece adjacent the coil, an intermediate decoupler provided between the adjacent coils including an elastomeric material for cushioning as well as for allowing free axial movement between the top and bottom pieces of the brace. For instance, Cooper et al. as seen in figures 1,2, teach using strain blocks **24** between the upper and lower coils, the ends of the strain blocks keyed in to the support ring **26**, and banding elements **32, 46, 48, 50, 52** made of epoxy resin impregnated fabric for securing the differing regions of the end windings.


It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided means for securing the winding layers as well as cushion between the layers of the coils as taught by Cooper et al. to the electrical machine of Shildneck and Elton et al. ('565) since such a modification according to column 2, lines 1-34 of Cooper et al. would provide support, reduced stress and wear between the stator coil end turns.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elvin Enad whose telephone number is (703) 308-7619.

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10. Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956. The fax phone number for this Group is (703) 305-3431 (32).



Elvin Enad
Primary Examiner
Art Unit 2834
02.16.2001